User manual

Fine blasting unit

Cemat-NT 2/ -NT 3/ -NT 4

Cemat-NT 2

Cemat-NT 3

Cemat-NT 4

CE

WASSERMANN DENTAL-MASCHINEN GMBH

Dear customer,

Thank you for choosing a product from the Wassermann range. Wassermann dental equipment incorporates the highest standards of quality and the latest technology. In order to enjoy maximum performance and years of trouble-free operation, please read this user manual carefully **before** you start work, and operate the unit according to the recommended guidelines.
Please ensure that all persons operating the equipment have read and understood this user manual.

Keep this user manual on hand for ready reference.

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1 For your safety

1.1 Correct use of this product

CEMAT-NT 2/3/4 high-precision, fine-abrading units are used to abrade, roughen or polish dental appliances.

1.2 Safety symbols used in this manual

Warning!

This is a warning of risk situations and dangers. Failure to observe this warning could be life-threatening. These warnings must be observed.

Information!

This symbol draws your attention to specific features, which must be observed.

1.3 Safety guidelines

Configuring and operating this equipment requires ***precise knowledge*** and ***observance*** of the instructions in this ***user manual***. The equipment is designed only for its intended application.

Servicing and repairs should be carried out only by authorised specialists.

Make sure that the equipment is connected to the correct power source.

1.4 Your user manual

Configuring and operating this equipment requires ***precise knowledge*** and ***observance*** of the instructions in this ***user manual***. The equipment is designed only for its intended application.

1.5 Responsibility for operation and damage

The responsibility for operating the unit lies exclusively with the owner or user if the said unit is incorrectly serviced, maintained or altered by persons not employed by an authorized dealer or if the unit is used in a manner contrary to its specified purpose.

The unit must be maintained and operated in accordance with this user manual. Wassermann Dental-Maschinen GmbH is not responsible for damage arising from the ***non-observance*** of these instructions.

Guarantee and responsibility provisions contained in the sales and supply conditions of Wassermann Dental-Maschinen GmbH are not extended by these instructions.

Product responsibility lapses if the equipment is altered by unauthorised third parties or if non-original parts are installed. Use only original WASSERMANN replacement parts.

1.6 Authorised users

The owner of the equipment must ensure that any users have been provided with the user manual and that they have read and understood its contents before operating the equipment.

Ensure that this user manual is accessible at all times and has been read and understood.

All instructions for using the equipment, whether verbal, written or in the form of practical examples, are based on our own experience and experimentation and can only be regarded as guidelines.

2 Care and maintenance

2.1 Maintenance

Always disconnect the power cable before undertaking cleaning or maintenance.
The model plate must always be legible and should not be removed.

The equipment should be cleaned at regular intervals to ensure trouble-free operation. It requires only normal cleaning (sponge, damp cloth, mild detergent). Do not use chemical additives.

2.2 Replacing worn components

2.2.1 Sleeves

The sleeves can be replaced by gloves. The procedure is the same:

1. Remove the ring with the spring inside the chamber.
2. Remove the old sleeve. Install the new sleeve on its mount so that it faces the wall.
3. Replace the ring with the flat side facing the wall.

2.2.2 Specially coated protection shield

1. Open the flap and undo the three thumbscrews on the disk.
2. Remove the aluminium guides.
3. Tip the disk forward and remove it from the front slot. **Please take care of the spacer reels.**
4. Replace it with the new disk.
5. Reassemble in reverse order.

2.2.3 Hoses

Before replacing the hoses, disconnect the power plug, undo the compressed-air line and release the pressure in the tanks.

1. Remove the grate from the chamber, then undo the thumbscrews and remove the pencil mount.
2. Remove the grate.
3. Rest the instrument on its side so that you can reach under it.
4. Use a no. 17 spanner to undo the black nut so you can unscrew and remove the black hose from the tank.
5. To remove the white control hose, grip it by the brass end, depress the brass ring on the valve and then remove the hose.
6. Pull the silver grip on the thrust valve. Insert your other hand through the access hole and pull the hose into the central chamber.
7. The hose is directed from the chamber through the port to the thrust valve, and then guided onto the nipple on the tank (**do not forget the nut and the plastic cap**). Before tightening the nut, make sure that the woven casing has been pushed **fully** over the rubber. Tighten the nut to the stop.
8. Insert the white hose only up to the stop.
9. Set the instrument upright again and re-install the pencil mount and the grate. Make sure that the hoses run **under** the screen grate.

2.2.4 Pencils

1. Undo the silver cap on the end of the pencil.
2. Remove the rubber hose and the white control hose.
3. Reassembly: slip the silver cap and the plastic ring onto the new hose. The recess in the plastic ring must match up with the control hose. Slip the black, nylon-sheathed rubber hose onto the nipple on the pencil. Then push the white control hose into the small opening up to the stop. Push the plastic ring firmly onto the pencil.
4. Slide the woven casing over the rubber and tighten the silver cap.

2.2.5 Lamp

Remove the power plug before replacing the lamp. The lamp is located top rear in the abrasion chamber.

1. Undo the knurled screws and then remove the guides and disk.
2. Turn the lamp to the left and remove from the socket.
3. When inserting a lamp, make sure you hear it click into place.
4. When inserting the disk, first locate it behind the lip at the front and then press it down into place. Insert the guide with the bend to the back and then tighten the knurled screws.

2.2.6 Nozzles

You must ensure that the nozzles suit the size of the abrasion media used. Replace nozzles by unscrewing the current nozzle and screwing on a new one. **Important: Before you screw on the new nozzle, use a short burst of compressed air to clear any residual abrasive from the hose.**

Warning! Before you use a 0.4 mm nozzle, you will need to change the receptor nozzle. Please order this as well to avoid blockages occurring.

2.2.7 Pressure regulator

There is a pressure regulator with integrated water separator at the rear of the instrument. This ensures that no moisture from the compressor enters the instrument's circulation system. It should be checked from time to time and emptied when it reaches its maximum level. To do so, release the grey outlet knob so the water can flow down into a container.

2.3 Care

Remove external dirt from time to time with some form of cold cleaner.

Use only cold cleaners to avoid damaging the paintwork or removing the lettering.

2.4 Cleaning

The interior of the chamber can easily be cleaned using the compressed-air nozzle. Fine dust will be removed by the suction system.
Coarse abrasive, which cannot be removed by the suction system, will fall through the grate and into the drawer.
In this way, the suction filter is not overloaded and the chamber remains free of abrasive. The drawer must be removed completely for emptying.

3 Use/ Application

The Cemat-NT family of fine-abrading units have multiple chambers for abrading, roughening and polishing, and are used to bring a lasting finish to the workpiece.
The latest technology means that system blockages are virtually a thing of the past. The instruments operate accurately and can prevent clumping of the abrasive. The new techniques used break up the abrasive continuously. The entire system is under pressure constantly and is ready for operation immediately. All Cemat-NT units are pneumatically controlled, thereby avoiding problems with electronics.

4 Before you start

4.1 Unpacking / Transport

- Open the cartons, remove the packing materials, and carefully lift out the instrument and accessories. Check that the accessories are correct.
- Place the instrument on a firm, level surface.
- When transporting the instrument, use appropriate packing materials to avoid accidental damage.

Locate the operating instructions and read them carefully.

When unpacking, it is important to identify any accidental transport damage. If necessary, draw up an immediate status report.

4.2 Contents

PVC hose ∅ 8x6 textile (blue), 2 m	320026
Supply line	592012
Cemat-NT 4 including 4 fine blasting jets 0.6 (yellow), 0.8 (blue), 0.8 (red), 1.2 (green)	190992
Cemat-NT 3 including 3 fine blasting jets 1.2 (blue), 0.8 (red), 0.6 (green)	190990
Cemat-NT 2 including 2 fine blasting jets 0.8 (red), 1.2 (green)	190993

4.3 Location / storage

- Set the unit up on a level surface.
- Attach the power cable and compressed-air line.
- The instrument must be connected to an external exhaust vent. The connection points are under the rear of the instrument.

5 Use

All abrasive tanks are colour-coded to match the pencils in the abrasion chamber. Thus, if you use the blue pencil, it will be fed with abrasive from the blue tank.

The instrument will operate only with the observation flap closed. A safety switch cuts power to the system if the flap is open.

5.1 Filling with abrasive

The instrument must be switched off before you fill it.
The tanks can only be opened after the pressure has been released. You do this by pressing the coloured point in the lid until you no longer hear air coming out. The lid can then be unscrewed and the container filled with abrasive.
All tanks accept all grain sizes. Make sure that the grain size of the medium being added matches that of the material already in the tank.

The nozzle and the grain size must also match. You should use a 0.8 mm nozzle when working with glass beads. A 1.2 mm nozzle is recommended for use with irregular bead sizes. Before replacing the lid, make sure that the thread and sealing surfaces are free of abrasive. The instrument is ready for use when **all** tanks have been sealed.

5.2 Abrading

You hold the pencil in your hand like a stylus. One finger must be placed at the top end of the flat recess. You then apply light finger pressure to initiate the abrasion process.

5.3 Regulating the abrasive

The pressure regulator at the rear of the instrument is set at the factory to 6 bar. This setting must **not** be changed. Adjustment of the abrasive pressure is done **only** using the black knobs at the top. You adjust the pressure by pulling the knob out and turning it to the **left** (**to reduce the pressure**) or to the **right** (**to increase the pressure**). You then push the knob in again. The set pressure can be read on the pressure gauge. Changing the pressure varies the abrasive feed velocity and the amount of abrasive used.

5.4 Cleaning nozzles

The instrument is fitted with a compressed-air nozzle for cleaning the inner area and the workpiece. You operate it by lightly bending the front section of the rubber pencil.

6 Start up

The instrument must be at room temperature before you start it.

Warning: Never connect to an oxygen cylinder to avoid the risk of a dust explosion.

1. Connect the instrument to the power supply and to the compressed-air line.
2. Fill the abrasive tanks.
3. Flip the (green) rocker switch.
4. The instrument is ready for use as soon as it reaches operating pressure.
5. The abrasion process is blocked until the observation flap is closed.

7 Troubleshooting / Correcting Errors

Fault	Likely cause	Likely solution
Irregular abrasive flow	Too little abrasive in tank or pencil nozzle too small or abrasive wet	Fill tank Use larger nozzle Replace with dry abrasive
No abrasive flow	Tank empty	Fill tank
	Nozzle and/or hose blocked	Unscrew nozzle from pencil and clean (eg, with a needle) and try process again; abrasive must flow. If necessary, kink hose briefly to increase pressure.
Falling pressure, low jet pressure	Filter blocked and/or seized	Contact our Service department

If the above recommendations do not solve the problem, contact your dental depot or our Service department.

Note:

Blockages are mostly the result of impure or clumped abrasive. If the sand is absorbing moisture, check the water separator and your compressor.

7.1 Technical data

Cemat-NT 4 **Cemat-NT 3** **Cemat-NT 2**	**Item no.: 190992** **Item no.: 190990*** **Item no.: 190993****
Voltage *	220–240 V / 50/60 Hz
Power consumption	0.2 A
Female connector power consumption max.	8 A
Output	50 W
W x H x D	550 x 480 x 610 mm 430 x 480 x 610 mm*/ **
Weight	42.6 k kg, 37.7 kg*, 34.0 kg**
Sound level	≤ 70 dB(A)
Tank capacity	800 cm^3 = 1.2 kg
Compressed air connection	3-6 bar
Working pressure	1-6 bar
Extractor nozzle	75 mm

Noise emission ≤ 70db(A).

We reserve the right to make technical changes.

7.2 Spare parts and accessories

We recommend our suction units **SG-1/2 D** with micro-filter or **WTS-1R**. They are very effective and have large filter capacities.

If spare parts are necessary please contact our service hotline phone:
0049 (0)40 / 730 92 6-0

7.3 Repairs

Servicing or repairs to the unit must only be carried out by trained technicians.
Only original spares are to be used.
Responsibility for the product is voided if altered by unauthorised persons or if inappropriate components are installed.

8 Warranty

The warranty period for our equipment is 12 months. If faults occur within the warranty period, contact your dental depot or get in touch directly with our Service department. Precision abrading units should only be operated in perfect condition. If faults occur which could harm operators or third parties, the unit should not be used until it has been fixed.
The warranty does not cover damage caused by improper use, external mechanical causes, transport damage or interference with the unit by unauthorized persons.

9 EC CONFORMITY CERTIFICATE

in accordance with 2006/95/EG (low-voltage guidelines) and 2004/108/EG (EMV guidelines) and 98/37/EG (machinery guidelines)

Manufacturer:	W A S S E R M A N N Dental-Maschinen GmbH Rudorffweg 15 - 17 D-21031 Hamburg	Product description:	Fine-abrading unit
Model:	CEMAT-NT 2 CEMAT-NT 3 CEMAT-NT 4		190993 190990 190992
Applicable standards:	DIN EN 61010-1:2004 DIN EN 61000-6-3:2005 DIN EN 61000-6-1:2002 DIN 45635-1:1984 DIN EN 60335-1:2007		

Hiermit wird bestätigt, dass die oben bezeichnete Maschine den genannten EG-Richtlinien entspricht. Diese Erklärung wird ungültig, falls die Maschine ohne unsere Zustimmung verändert wird.

This is to confirm that the above mentioned machine complies with the described EC rules. This declaration becomes invalid if the machine is modified without our approval.

Cette machine est conforme aux normes en vigueur de la Communité Européene. Cet avis est nul et non avenant si cette machine est modifiée sans notre accord.

Esta máquina, anteriormente mencionada, cumple con los limites requeridos por el reglamento EC. Ahora bien, esta declaración quedará invalidada en caso de realizar modificaciones al aparato sin nuestra aprobación.

Hiermee wordt bevestigd dat bovengenoemde machine voldoet aan de voorgeschreven EU normen. Deze verklaring verliest geldigheid als er zonder onze uitdrukkelijke toestemming wijzigen aan de machine worden aangebracht.

Place, date: Hamburg, 20.07.2007

Company stamp:

WASSERMANN DENTAL-MASCHINEN GMBH
Rudorffweg 15-17 · 21031 Hamburg

Signature: Wilfried Wassermann

Wilfried Wassermann
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